

Title (en)

EFFICIENT METHODS FOR AUTHENTICATED COMMUNICATION

Title (de)

EFFIZIENTE VERFAHREN FÜR AUTHENTIFIZIERTE KOMMUNIKATION

Title (fr)

PROCÉDÉS EFFICACES POUR UNE COMMUNICATION AUTHENTIFIÉE

Publication

EP 3158680 A4 20180207 (EN)

Application

EP 15810102 A 20150618

Priority

- US 201462014102 P 20140618
- US 201462016048 P 20140623
- US 2015036524 W 20150618

Abstract (en)

[origin: US2015372811A1] Embodiments of the invention relate to efficient methods for authenticated communication. In one embodiment, a first computing device can generate an ephemeral key pair comprising an ephemeral public key and an ephemeral private key. The first computing device can generate a first shared secret using the ephemeral private key and a static second device public key. The first computing device can encrypt request data using the first shared secret to obtain encrypted request data. The first computing device can send a request message including the encrypted request data and the ephemeral public key to a server computer. Upon receiving a response message from the server computer, the first computing device can determine a second shared secret using the ephemeral private key and the blinded static second device public key. The first computing device can then decrypt the encrypted response data from the response message to obtain response data.

IPC 8 full level

G06Q 20/32 (2012.01); G06Q 20/38 (2012.01); H04L 9/08 (2006.01); H04L 9/14 (2006.01); H04L 9/30 (2006.01); H04L 9/32 (2006.01); H04L 29/06 (2006.01)

CPC (source: EP US)

G06Q 20/3227 (2013.01 - EP US); G06Q 20/3829 (2013.01 - EP US); H04L 9/0841 (2013.01 - EP US); H04L 9/3228 (2013.01 - EP US); H04L 63/0428 (2013.01 - EP US); H04L 63/0442 (2013.01 - US); H04L 63/068 (2013.01 - EP US); H04L 63/0823 (2013.01 - EP US); H04L 2209/04 (2013.01 - EP US); H04L 2463/061 (2013.01 - EP US)

Citation (search report)

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- [A] US 2005066175 A1 20050324 - PERLMAN RADIA J [US]
- [A] US 2011307698 A1 20111215 - VANSTONE SCOTT ALEXANDER [CA]
- See references of WO 2015195978A1

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Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

US 10574633 B2 20200225; US 2015372811 A1 20151224; AU 2015277000 A1 20161117; AU 2015277000 B2 20190516;
AU 2015277000 C1 20191128; AU 2019216646 A1 20190905; AU 2019216646 B2 20210128; CN 106664206 A 20170510;
CN 106664206 B 20200512; CN 111355749 A 20200630; EP 3158680 A1 20170426; EP 3158680 A4 20180207; EP 3158680 B1 20210224;
EP 3860041 A1 20210804; EP 3860041 B1 20230315; US 11394697 B2 20220719; US 2020092269 A1 20200319;
US 2022353252 A1 20221103; WO 2015195978 A1 20151223

DOCDB simple family (application)

US 201514743874 A 20150618; AU 2015277000 A 20150618; AU 2019216646 A 20190814; CN 201580032715 A 20150618;
CN 202010298355 A 20150618; EP 15810102 A 20150618; EP 21158837 A 20150618; US 2015036524 W 20150618;
US 201916694668 A 20191125; US 202217860917 A 20220708